

Abstract

A ceramic member, which is usable in a state where at least a part thereof is exposed in a reactor in which halogen plasma is generated, includes a base member containing a first ceramic material, and a coating layer on a surface of the base member containing a second ceramic material more resistant to plasma etching than the first ceramic material. Further, the ceramic member includes a thick portion in a region where an etching rate of the coating layer by the halogen plasma is locally high, and a thickness (tt) of the thick portion and a thickness (tn) of a normal thickness portion other than the thick portion satisfy the following expression (1):

$$t_n < t_t \leq (E_e/E_n) \times t_n \quad \dots\dots\dots (1)$$

where E_n : etching rate of the coating layer in the normal thickness portion; and

E_e : etching rate of the coating layer in the thick portion.